



# STUDY OF ENVIRONMENTAL AWARENESS OF SECONDARY LEVEL STUDENTS

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## ABSTRACT

All human generated environmental degradations are serious and worsening for the future of earth. uncontrolled anthropogenic activities such as industrialization and urbanization creates a number of environmental problems. Deforestation, soil erosion, bio-diversity loss, pollution, ozone layer depletion, global climate change and over consumption of natural resources are serious problems. In order to make the people aware about those aspects of environment, with which they are associated, it is very important to make every citizen environmentally educated. Environmental education is significant and is the need of today to help citizens to acquire the necessary knowledge and attitude for environmental protection. Environmental awareness and understanding among the people are, at ones, consequences of environmental educational process. Environmental awareness as a global phenomenon is of recent origin. In India Hindu literatures show that environmental awareness was realized even by the Pre- Vedic man.

**KEY WORDS:** Environmental awareness, global climate change, anthropogenic activities.

## Introduction:

Environment is complex and complicated and different spheres interlinked with one another. Each sphere (regime) plays a key role in maintaining the state of environmental equilibrium. Environment is sum total of water, air and land, interrelationship among themselves and also with the human beings, other living organisms and property. Environment belongs to all and is thus important for all. Whatever be the occupation or age of a person, he or she will be affected by environment and will also affect the environment by his or her deeds. Thus environment is one subject that is actually global in nature. There are some environmental problems which may be of localized importance but there are some major issues like global warming, climate change, depletion of ozone layer, dwindling forests and energy resources, loss of global biodiversity etc. (Kaushik and Kaushik, 2006). Rapid growth and application of science and technology to economic activities naturally leads to modern industrialization which accompanied with or without some other factors, results among other things in urbanization and environmental pollution. Increasing urbanization in itself creates a number of problems and crises. The greatest harm to environment comes through inverted science and technology in form of economic development that began thereafter everyone wanted to overtake each other. We have therefore to better take care of the human race. The ecological equilibrium has to be maintained and this issue needs an urgent and adequate attention. (Nilam, 2003).

## Hypothesis:

The study was exploratory in nature. The null hypothesis was formulated:

1. There is no significant difference between different groups of secondary level students of district Tehri in respect to their sex (male/female students), locality (rural/urban students) in respect to their level of environmental awareness.

## Review of related Literature:

A survey of literature on environmental awareness yielded quite inconclusive results. Shah Nawaj (1990), in a study on environmental awareness and environmental attitude of secondary and higher secondary teachers and students in Rajasthan, found that female students possessed significantly more awareness than males. Dinakara (2000) reported significant difference between urban and rural school teachers in environmental awareness. Shobeiri et al. (2007) investigated secondary school students' environmental awareness in India and Iran. The findings of the study were: (i) in this study it was found that there is a significant difference in the level of students' environmental awareness between two countries. The study found that number of Indian students with average level of environmental awareness is more than their counterparts in Iran. (ii) Result indicated that in total there is no significant difference between boy and girl students and their level of environmental awareness. (iii) Boy and girl students in this study have the same level of environmental awareness and gender is not a factor, which affects their environmental awareness. (iv) Type of school management has impact on environmental awareness of students in both. Kaur and Kaur (2009) studied environmental awareness of secondary and senior secondary student in Patiala district. The findings of the study were: (i) the secondary and senior secondary students of Patiala district have more awareness regarding the environment. (ii) Gender is not a factor for affecting environmental awareness of school students. (iii) Students of private schools have more environmental awareness than government school students. (iv) Students in semi-government schools

have better environmental awareness than government school students. (v) Urban areas school students have much environmental awareness as compared to rural areas school students. (vi) English medium students have higher environmental awareness as compared to Punjabi

## Methodology:

The research design is the conceptual structure in which research is conducted. It constitutes the blue print for the collection, measurement and analysis of data.

## Population of the Study:

The present study was conducted in district Tehri Garhwal of Uttarakhand state. All students studying in IX, X classes of Govt. /Semi Govt. and Pvt. Schools were considered as the population of the study.

## Sample and sampling technique:

In the present investigation, a sample of 150(75 girls and 75 boys) was selected randomly from different rural and urban schools of district Tehri Garhwal. For the selection of sample, multi stage stratified random sampling method was adopted.

## Tools Used:

The following instrument was used for collection of data-

## Environmental Awareness Ability Measure (EAAM):

This scale was developed and standardized by P.K.Jha (1998). It consists of 51 items.

## Administration of the Tool and Collection of Data:

The data was tabularized as per the objectives of the study.

## Delimitation of the Study:

Due to the time, money, energy and other constraints the purposed study was delimited to the various institutions located in district Tehri of Uttarakhand.

## Statistical Techniques Used:

To test the null hypothesis the Mean and S.D. values was calculated and to compare the sub group of the sample 't' test was calculated.

## Analysis and Interpretations:

The data was analysed and interpreted using the 't' test technique to achieve the objectives and verifying the hypothesis of the study.

**Table 1: Mean and SD Scores of Girls and Boys secondary school students of Tehri district on different dimensions of Environment Awareness Ability Measure (EAAM) Scale.**

S.N.	Dimensions	Girls Students (N = 75)		Boys Students (N=75)		't' Value (df=148)
		Mean	SD	Mean	SD	
1.	Causes of pollution	7.0	1.16	6.8	1.79	1.53
2.	Conservation of soil, forest, air, etc.	7.3	1.19	6.75	1.61	4.33**

3	Energy conservation	7.2	1.19	7.01	1.34	1.92
4.	Conservation of human health.	7.5	1.29	7.3	1.24	1.36
5.	Conservation of wild life and animal husbandry	7.5	1.30	6.82	1.18	4.6**
6.	Over all EAAM	36.50	6.13	34.68	7.16	3.25**

\*\*Significant at 0.01 level of significance.

Results from Table -1 reveals that a significant variation was found between boys and girls students of Tehri district on dimension i.e. conservation of soil, forest, air etc.( $t=4.33$ ) and conservation of wildlife and animal husbandry( $t=4.6$ ) of environment awareness ability measure scale at 0.01 level of significance. Female students scored higher mean values on all the dimensions. No significant difference was found between both the groups of comparison on some dimensions like causes of pollution ( $t=1.53$ ), energy conservation ( $t=1.92$ ), and conservation of human health ( $t=1.36$ ). Overall a significant variation was found between boys and girls students ( $t=3.25$ ) at 0.01 level of significance.

**Table 2: Mean and SD Scores of Urban and Rural secondary school students of Tehri district on different dimensions of Environment Awareness Ability Measure (EAAM) Scale.**

S.N.	Dimensions	Urban Students (N = 75)		Rural Students (N=75)		't' Value (df=148)
		Mean	SD	Mean	SD	
1.	Causes of pollution	7.72	1.15	7.01	1.79	5.48**
2.	Conservation of soil, forest, air, etc.	7.25	1.23	6.82	1.63	3.07**
3	Energy conservation	7.22	1.18	7.02	1.36	1.51
4.	Conservation of human health.	7.41	1.30	7.32	1.25	0.62
5.	Conservation of wild life and animal husbandry	7.68	1.28	6.78	1.21	4.30**
6.	Over all EAAM	37.28	6.14	34.95	7.24	3.98**

\*\*Significant at 0.01 level of significance.

From table -2 it is found that the overall environmental awareness scores indicates that there is significant difference between urban and rural secondary students of Tehri district ( $t=3.98$ ;  $p=0.01$ ). urban students had scored higher mean values than their counterparts on the sub factors of environmental awareness i.e. causes of pollution, conservation of soil, forest, air, etc.; conservation of wild life and animal husbandry, energy conservation and conservation of human health. While no significant difference was found between urban and rural students in sub factors; energy conservation ( $t=1.51$ ) and conservation of human health ( $t=0.62$ )

#### Findings:

The findings of the study are as follows:

1. Null hypothesis that, there is no significant difference between different groups of secondary level students of district Tehri in respect to their sex, (male /female, students), locality, (rural/urban, students) in respect to their level of environmental awareness is partially rejected and partially accepted. The findings related to this hypothesis are as follows:
  - 1.1 A significant difference was found between girls and boys secondary students on conservation of soil, forest, air etc. and conservation of wild life and animal husbandry dimensions of EAAM scale. As well as on overall environmental awareness. This difference was found at 0.01 level of significance.
  - 1.2 No significant difference was found between girls and boys secondary students on the dimensions causes of pollution, energy conservation, and conservation of human health.
  - 1.3 Female students scored higher mean values in all the dimensions of EAAM scale.
  - 1.4 Significant variation was found between rural and urban secondary students on causes of pollution, conservation of soil, forest, air etc, conservation of wildlife and animal husbandry dimensions of EAAM scale and as well as on overall environmental awareness.
  - 1.5 Urban secondary students had scored higher mean values than their rural counterparts in all the dimensions as well as on overall environmental awareness.
  - 1.6 No significant variation was found between rural and urban secondary stu-

dents on energy conservation and conservation of human health dimensions of EAAM scale.

#### Educational implications of the study:

The environmental problems may increase in a huge amount mainly due to some global negative activities or environmental policies of countries rather than an individual activity. But, as an individual there are a lot of things that can be done to prevent the environmental pollution and the rapid destruction of environment. Only individuals who have environmental literacy, awareness, and sensibility would contribute the diminishing the environmental problems.

Therefore environmental education has been viewed as an important way to educate students about environmental issues in identifying and challenging environmental problems in all educational levels including university. In attending this goal, one of the important outcomes of an effective environmental education is to lead positive changes in students' attitudes and behaviours toward environment. Environmental attitudes provide a good understanding of the set of beliefs, interests, or rules that influence environmentalism or pro-environmental action (Fernandez-Manzanal et.al. 2007).

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